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44A NEW PELECYPOD GENUS OF THE FAMILY
CARDIIDAE

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An evaluation of the pelecypod family Cardiidæ (summarized elsewhere¹), by means of a graphic comparison of the genotypes of the fifteen principal named groups, indicates the desirability of erecting a new genus. None of the genotypic species examined exhibits the distinctive characters which constantly appear in the Northwest American cardiids hitherto, though incorrectly, classified as *Cerastoderma*. The purpose of this preliminary note is to validate a name used in manuscript; detailed discussion of the species included in the genus is withheld for a monographic study whose publication may be considerably delayed.

CLINOCARDIUM Keen, new genus

Genotype: *Cardium nuttallii* Conrad, 1837

Description.—Shell medium to large, trigonal, oblique, usually ventricose; beaks recurved, prosogyrate; position of the umbones varying with age but usually at two-thirds the distance between posterior and anterior ends of the shell; dorsal margin very broadly arched, sloping downward at an angle of about 25°, ventral and anterior margins broadly rounded; epidermis closely adherent, brownish; sculpture of 28 to 55 rounded radial ribs and concentric growth lines which may cross the ribs as conspicuous loops, never as spines; lunule when present circumscribed, never impressed; escutcheon inconspicuous; ligament in dorsal view long, narrow, and oval. Interior porcellaneous, ventral and anterior margins crenulate; hinge arched; cardinals in each valve slightly nearer anterior than posterior laterals; anterior cardinal of left valve stronger than posterior, recurved, posterior cardinal

¹ KEEN, A. MYRA, Revision of Cardiid Pelecypods; Proc. Geol. Soc. Amer. for 1935 (1936). Preliminary abstracts, Dec., 1935, p. 61.

of right valve stronger than anterior, also recurved; ligament not elevated on a short, shelly platform; beaks originating at a point slightly anterior to the anterior cardinals; muscle scars large; pallial line simple. Specimens range in length up to about 120 mm.

Remarks.—*Clinocardium* is distinguished from its nearest relative, *Cerastoderma*, by the markedly forward-pointing beaks, the long, narrow, low ligament, the arched hinge-line, and the greater number of ribs. From *Laevicardium* it is distinguished by the presence of elevated ribs and by the long, depressed ligament.

Clinocardium nuttallii (Conrad)

Cardium nuttallii Conrad, Jour. Acad. Nat. Sci. Phila., vol. 7, 1837, p. 229, pl. 17, fig. 3.

"*Cardium corbis* (Martyn)" of West Coast authors; (not *Corbis* Martyn, Univ. Conch., Tab. 2, fig. 80, 1788).

Type locality.—A few miles from the estuary of the Columbia River.

Repository of holotype.—Academy of Natural Sciences, Philadelphia; Catalogue No. 54036.

The name *Cardium corbis* (Martyn) is unavailable for two important reasons: First, as Winckworth² has pointed out, Martyn's *Universal Conchologist* is not consistently binomial and hence is to be rejected. Second, the identification of the West American species with that figured by Martyn is erroneous, a fact recognized by Conrad³ in 1869. The first available name, therefore, is *nuttallii* Conrad, 1837.

OTHER SPECIES OF CLINOCARDIUM

The following tabulation lists all of the other species which have been determined to be *Clinocardium*. Several Japanese Tertiary species will probably prove to belong here, as well as some two or three unnamed species from the Tertiary of California.

<i>Species</i>	<i>Type Locality</i>	<i>Age</i>
<i>blandum</i> (Gould) 1850	Puget Sound, Washington	Recent
<i>bülowi</i> (Rolle) 1896	Yokohama, Japan	Recent
<i>californiense</i> (Deshayes) 1839	(Of lectotype) Kamtschatka; (Of description) "Mers de Californie"	Recent
<i>ciliatum</i> (Fabricius) 1780	Greenland	Recent
<i>coosense</i> (Dall) 1909	Coos Bay, Oregon; "Miocene"	Pliocene
<i>comoxense</i> (Dall) 1900	Vancouver Island, B. C.	Pleistocene
<i>decoratum</i> (Grewingk) 1850	Aleutian Islands, "Jüngsten Tertiärzeit"	Pleistocene?
<i>fucanum</i> (Dall) 1907	Juan de Fuca Strait	Recent
<i>meekianum</i> (Gabb) 1866	Eagle Prairie, Humboldt County, California, Pliocene	Pliocene
<i>yakatagense</i> (Clark) 1932	Yakataga formation, southern Alaska, "Upper Oligocene"	Pliocene?

² WINCKWORTH, R., Notes on nomenclature; Proc. Mal. Soc. London, vol. 18, pt. 5, July, 1929, pp. 228-229.

³ CONRAD, T. A., Notes on Recent Mollusca; Amer. Jour. Conch., vol. 5, pt. 2, 1869, p. 105.